FIG.1

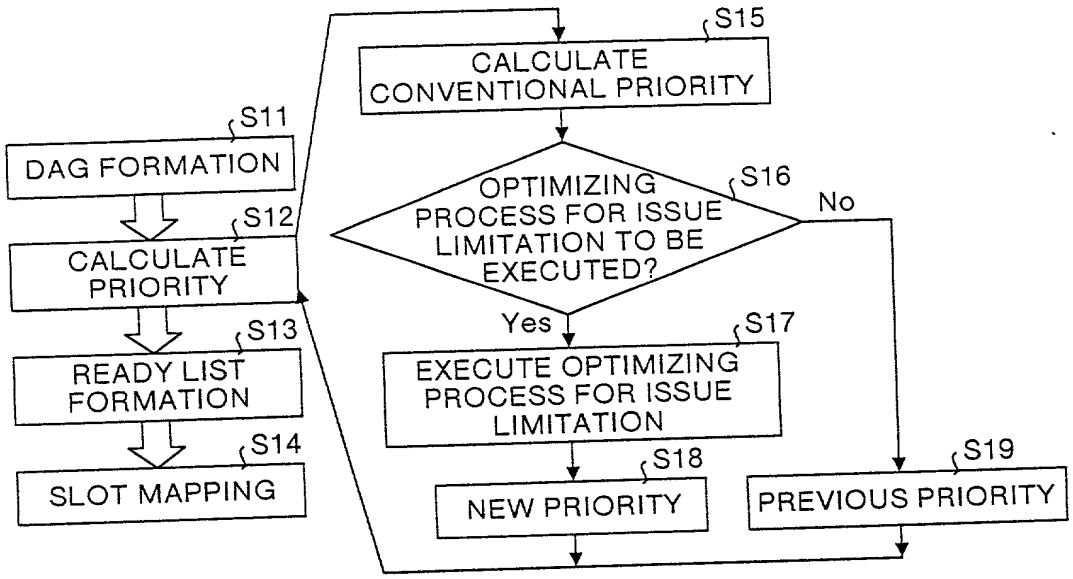
S11
DAG FORMATION
S12
CALCULATE PRIORITY
S13
READY LIST FORMATION
S14
SLOT MAPPING
S15
CALCULATE CONVENTIONAL PRIORITY
S16
OPTIMIZING PROCESS FOR ISSUE LIMITATION TO BE EXECUTED?
No
Yes
S17
EXECUTE OPTIMIZING PROCESS FOR ISSUE LIMITATION
S18
NEW PRIORITY
S19
PREVIOUS PRIORITY

FIG.2

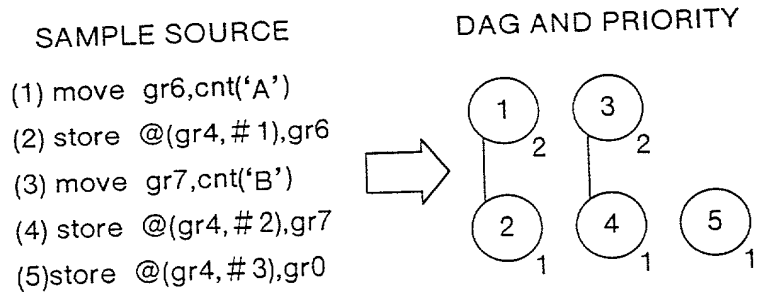
SAMPLE SOURCE
(1) move gr6,cnt('A')
(2) store @(gr4,#1),gr6
(3) move gr7,cnt('B')
(4) store @(gr4,#2),gr7
(5)store @(gr4,#3),gr0
DAG AND PRIORITY
1
2
3
4
5
2
2
1
1
1

FIG.3

PRIORITY	COMMAND
2	(1)(3)
1	(2)(4)(5)

FIG.4

PRIORITY	NUMBER OF ACTUAL VLIW COMMANDS	NUMBER OF MINIMUM VLIW COMMANDS	PROCESS FOR ISSUE LIMITATION
2	1	1	NONE
1	3	2	PRESENT

FIG.5

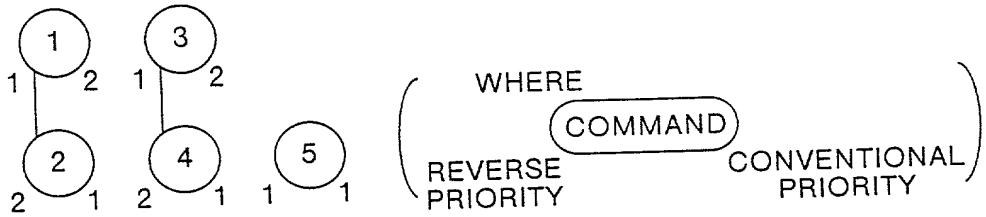

FIG.6

COMMAND	REVERSE PRIORITY VALUE	ORDER OF GENERATION	WEIGHT
(2)	2	1	1
(4)	2	2	0
(5)	1	3	2

FIG.7

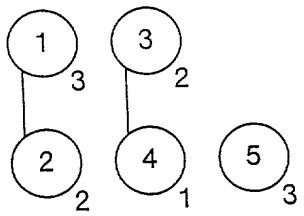

FIG.8

(5)→(1)→(2)→(3)→(4)
SLOT MAPPING IS CARRIED OUT IN SUCCESSION

PSEUDO MACHINE TABLE

	I0 SLOT	I1 SLOT
α	5	1
$\alpha+1$	2	3
$\alpha+2$	4	

FIG.9

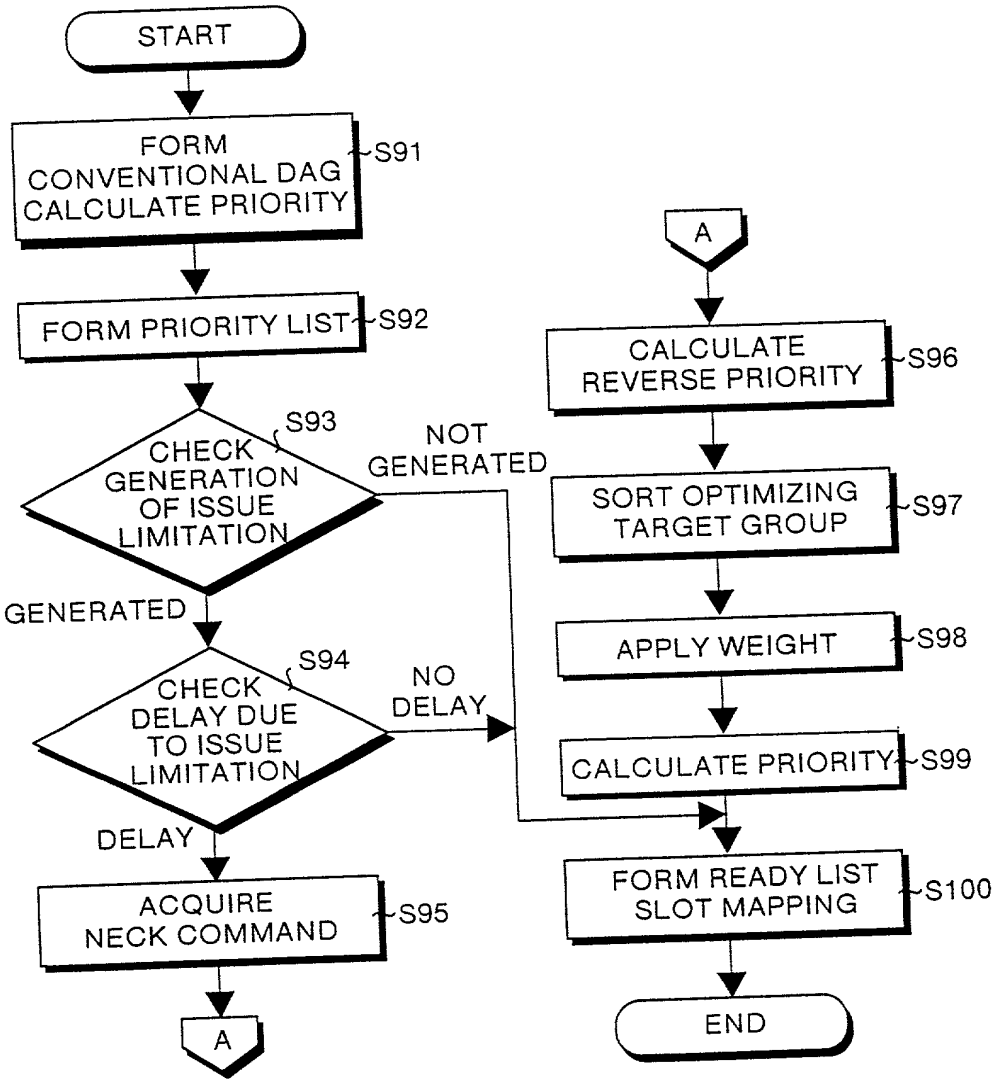
START
FORM CONVENTIONAL DAG CALCULATE PRIORITY
S91
FORM PRIORITY LIST
S92
CHECK GENERATION OF ISSUE LIMITATION
S93
NOT GENERATED
GENERATED
CHECK DELAY DUE TO ISSUE LIMITATION
S94
NO DELAY
DELAY
ACQUIRE NECK COMMAND
S95
A
A
CALCULATE REVERSE PRIORITY
S96
SORT OPTIMIZING TARGET GROUP
S97
APPLY WEIGHT
S98
CALCULATE PRIORITY
S99
FORM READY LIST SLOT MAPPING
S100
END

FIG.10

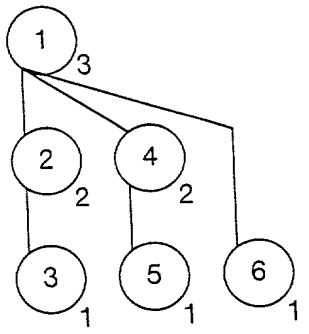

FIG.11

PRIORITY	COMMAND LIST
1	(3),(5),(6)
2	(2),(4)
3	(1)

FIG.12

PRIORITY	COMMAND LIST	RESULTS OF ISSUE LIMITATION CHECK
1	(3),(5),(6)	PRESENT
2	(2),(4)	NONE
3	(1)	NONE

FIG.13

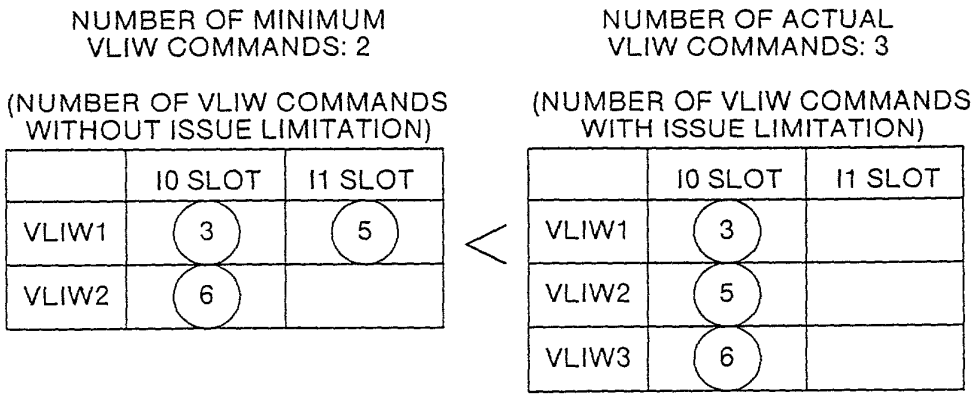

FIG.14

NUMBER OF VLIW COMMANDS WITHOUT ISSUE LIMITATION (NUMBER OF MINIMUM VLIW COMMANDS)	NUMBER OF VLIW COMMANDS REQUIRED FOR ACTUAL ISSUE (NUMBER OF ACTUAL VLIW COMMANDS)
TWO	THREE

FIG.15

PRIORITY	COMMAND LIST	RESULTS OF ISSUE LIMITATION CHECK	DELAY CHECK
1	(3),(5),(6)	PRESENT	PRESENT
2	(2),(4)	NONE	—
3	(1)	NONE	—

FIG.16

NECK COMMAND	NECK PRIORITY
(1)	3

FIG.17

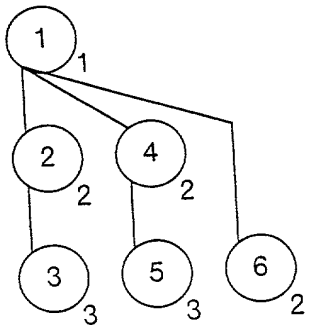

FIG.18

ADVANTAGE

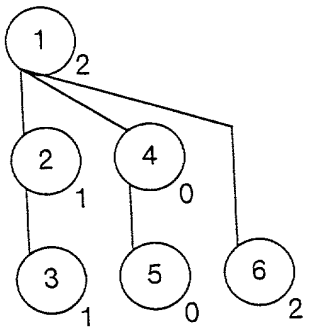

FIG.19

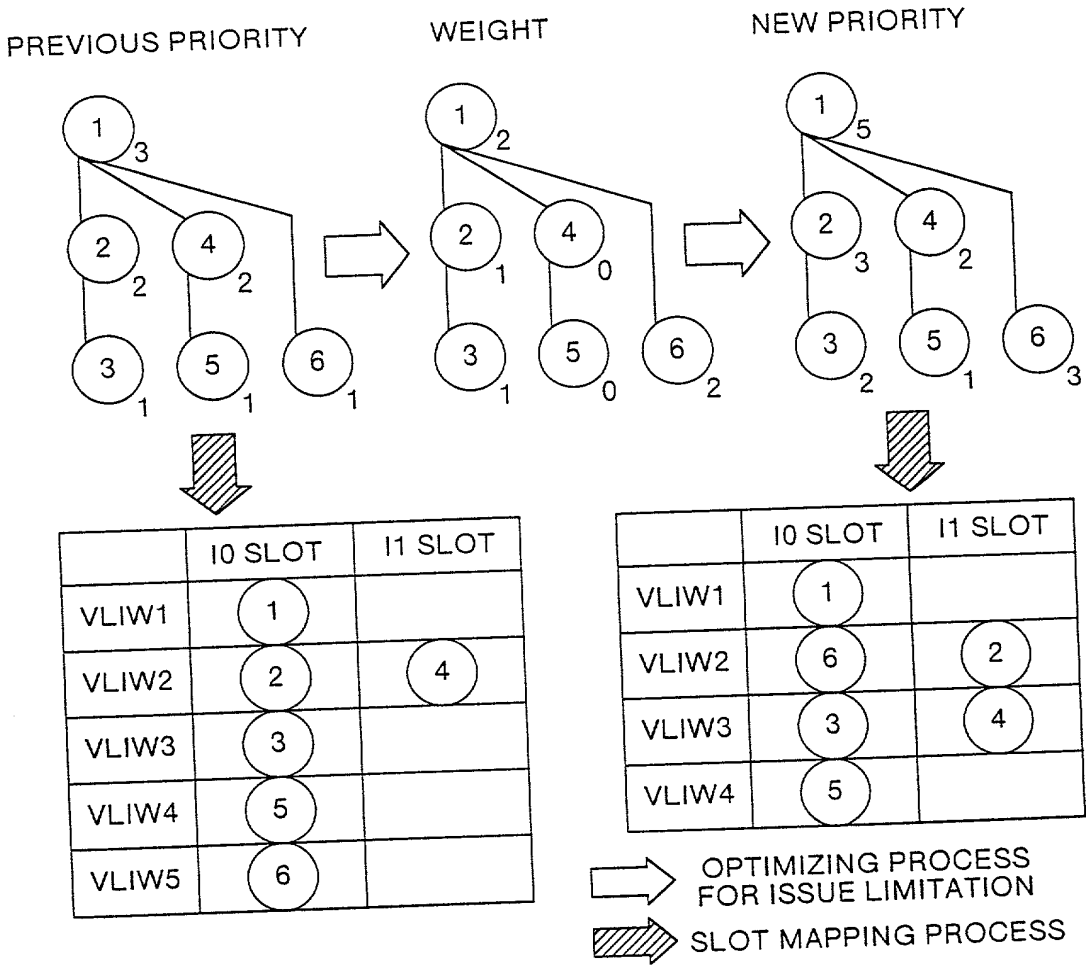
PREVIOUS PRIORITY
WEIGHT
NEW PRIORITY
1 3
2 2
4 2
3 1
5 1
6 1
1 2
2 1
4 0
3 1
5 0
6 2
1 5
2 3
4 2
3 2
5 1
6 3
I0 SLOT
I1 SLOT
VLIW1
VLIW2
VLIW3
VLIW4
VLIW5
1
2
4
3
5
6
I0 SLOT
I1 SLOT
VLIW1
VLIW2
VLIW3
VLIW4
1
6
2
3
4
5
OPTIMIZING PROCESS FOR ISSUE LIMITATION
SLOT MAPPING PROCESS

FIG.20

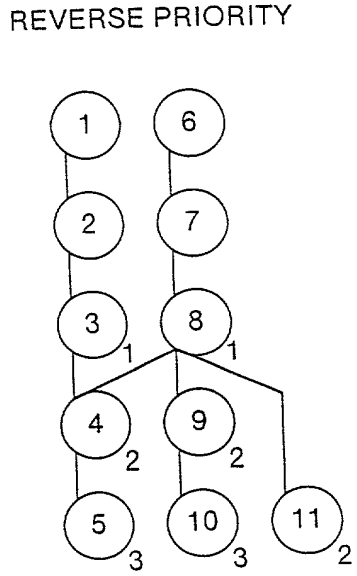
REVERSE PRIORITY
1
6
2
7
3
1
8
1
4
2
9
2
5
3
10
3
11
2

FIG.21

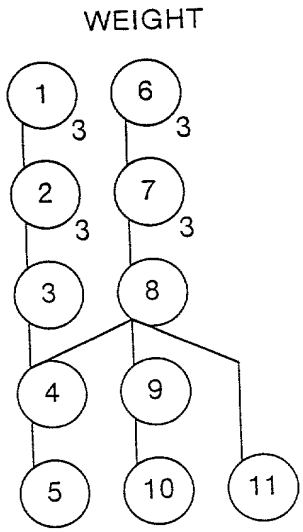
WEIGHT
1
3
6
3
2
3
7
3
3
8
4
9
5
10
11

FIG.22

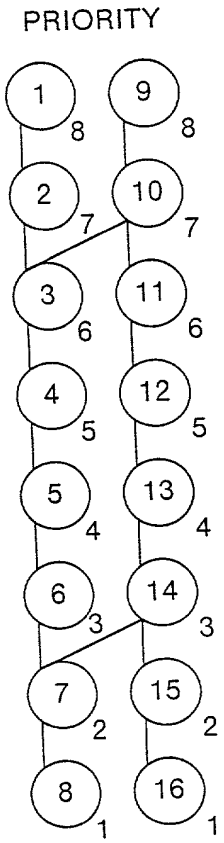

FIG.23

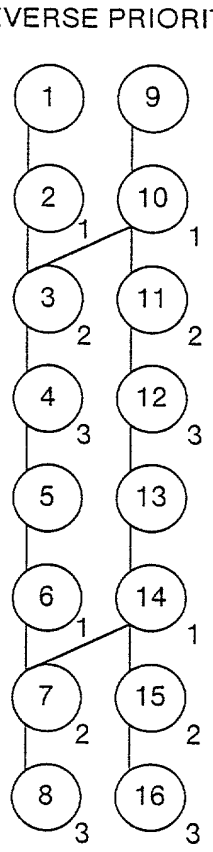
REVERSE PRIORITY
1
9
2
10
1
1
3
11
2
2
4
12
3
3
5
13
6
14
1
1
7
15
2
2
8
16
3
3

FIG.24

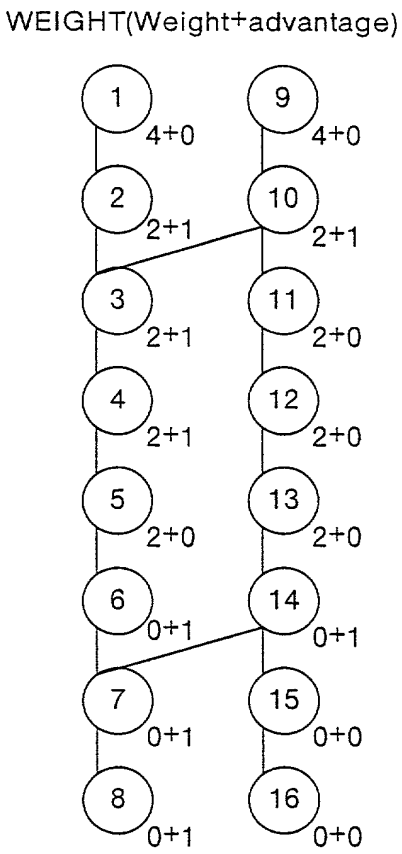
WEIGHT(Weight+advantage)
1
4+0
2
2+1
3
2+1
4
2+1
5
2+0
6
0+1
7
0+1
8
0+1
9
4+0
10
2+1
11
2+0
12
2+0
13
2+0
14
0+1
15
0+0
16
0+0

FIG.25

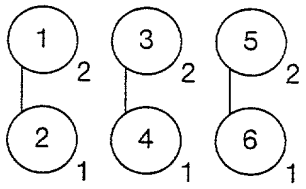

FIG.26

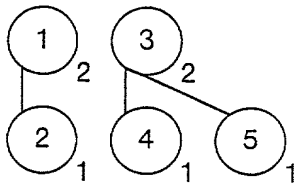

FIG.27